

## ABSTRACT

The present invention involves processes that utilize an olefinic compound, in particular, hexafluoropropene (HFP) or chlorotrifluoroethene (CFC-1113) as extracting agents in the purification of pentafluoroethane (HFC-125). These processes can utilize recovered HFP as a precursor for the production of heptafluoropropane (HFC-227) or other derivatives.